

Title (en)

AN ALIGNMENT APPARATUS FOR PRECISELY ALIGNING AN OPTICAL FIBER AND AN ASSOCIATED FABRICATION METHOD

Title (de)

EINE JUSTIERVORRICHTUNG ZUM GENAUEN AUSRICHTEN EINER OPTISCHEN FASER UND EIN HIERMIT ZUSAMMENHÄNGENDES HERSTELLUNGSVERFAHREN

Title (fr)

DISPOSITIF POUR ALIGNER DE MANIERE PRECISE UNE FIBRE OPTIQUE ET PROCEDE DE FABRICATION ASSOCIE

Publication

EP 0927375 B1 20020220 (EN)

Application

EP 96932310 A 19960920

Priority

- US 9615213 W 19960920
- US 48624295 A 19950607
- US 47310695 A 19950607

Abstract (en)

[origin: US5881198A] A microactuator for precisely positioning an optical fiber, such as in alignment with an optical device, includes an alignment support structure, a carrier movably mounted on the alignment support structure and at least one actuator which bends or deflects in response to a predetermined stimuli to thereby controllably position the carrier and, in turn, an optical fiber mounted on the carrier relative to the alignment support structure. The actuator can include a bimorphic actuator, an asymmetric monomorph, a diaphragm or a comb structure, for example. As a result, the actuator typically deflects in response to electrical or thermal stimuli. The carrier can include the actuator such that upon deflection the actuator is urged against a portion of the alignment support structure and the carrier is correspondingly moved relative to the alignment support structure. Alternatively, the alignment support structure can include the actuator such that upon deflection the actuator is urged against a portion of the carrier and the carrier is correspondingly moved relative to the alignment support structure. By maintaining the alignment support structure in a fixed relation to an optical device, however, the carrier and, in turn, the optical fiber mounted on the carrier can be positioned in precise alignment with the optical device.

IPC 1-7

G02B 6/42; **G02B 6/32**; **G02B 6/255**; **G02B 7/00**; **H01L 41/00**

IPC 8 full level

G02B 6/36 (2006.01); **G02B 6/32** (2006.01); **G02B 6/38** (2006.01); **G02B 6/42** (2006.01)

CPC (source: EP US)

G02B 6/32 (2013.01 - EP US); **G02B 6/3803** (2013.01 - EP US); **G02B 6/4225** (2013.01 - EP US); **G02B 6/4226** (2013.01 - EP US); **G02B 6/3656** (2013.01 - EP US); **G02B 6/4236** (2013.01 - EP US)

Cited by

DE102004033830B4; US7503395B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

US 5881198 A 19990309; AU 7116396 A 19980414; DE 69619408 D1 20020328; DE 69619408 T2 20021121; EP 0927375 A1 19990707; EP 0927375 B1 20020220; JP 2001502067 A 20010213; WO 9812587 A1 19980326

DOCDB simple family (application)

US 79904897 A 19970210; AU 7116396 A 19960920; DE 69619408 T 19960920; EP 96932310 A 19960920; JP 51462398 A 19960920; US 9615213 W 19960920